

REMARKS

Regarding the status of the present application, Claim 7 has been amended and Claims 1-8 are pending in this application. Reconsideration of this application is respectfully requested. A petition and fee for a four month extension of time is enclosed.

A typographical error was noted in Fig. 1. Enclosed is an amended drawing showing the proposed correction marked in red ink. Also enclosed is a replacement reproducing master containing the correction. Entry of the amended drawing and replacement reproducing master is respectfully requested.

Claim 7 was objected to because of an informality noted by the Examiner. Claim 7 has been amended to address the Examiner's issue, and is considered clear and definite. Withdrawal of the Examiner's objection is respectfully requested.

Claims 1 and 6-8 were rejected under 35 U.S.C. § 102(b) as being anticipated by US Patent No. 5,379,346 issued to Pecora et al. Claim 1 calls for a chaos privacy system for use in communicating an analog signal that comprises a transmitter and a receiver. The transmitter includes a key stream generator comprising a chaotic circuit that generates a key stream in response to a private key parameter, and transmits a key synchronization parameter, and a transmitting chaotic circuit that processes the analog information signal and the key stream to generate and transmit a cipherwave. The receiver receives the transmitted cipherwave, the transmitted key synchronization parameter, and a copy of the private key parameter. The receiver comprises a key stream generator comprising a chaotic circuit that processes the copy of the private key parameter and the transmitted key synchronization parameter to generate a copy of the key stream, and a receiving chaotic circuit that processes the copy of the key stream and the cipherwave to demodulate the cipherwave to recover and output the information signal.

In the present invention, the private key parameter is input to both the transmitter and receiver. Also, the transmitter and receiver each include a key stream generator that is responsive to the private key parameter to generate a key stream that is used to generate the cipherwave and demodulate the cipherwave. It is respectfully submitted that these aspects of the present invention are not disclosed or suggested by the Pecora et al. patent.

The only mention of the term "key" in the Pecora et al. patent is that "The at least one drive signal S_d serves as a "key" to the receiver to extract the information from the chaos." which may be found at column 10, lines 31-33. The terms "key stream" and "private key" are not used in the Pecora et al. patent. For example, it is noted that the Examiner only made a general allegation that the Pecora et al. patent discloses a receiver that includes a key stream generator comprising a chaotic circuit that processes the copy of the private key parameter, since the Examiner did not cite any specific portion of the Pecora et al. patent as disclosing this. Furthermore, it is clear from reading the Pecora et al. patent that it does not disclose or suggest that a private key is input to both the transmitter and receiver. Furthermore, the Pecora et al. patent does not disclose or suggest that a copy of the key stream is used to demodulate a cipherwave. There is no demodulation performed in the Pecora et al. system.

Furthermore, while the drive signal S_d appears to operate as a synchronization signal, it is clear from looking at Figs. 1 and 3 of the Pecora et al. patent, for example, that the subsystem 12 does not have any input signals applied thereto, and certainly there is no private key parameter input to the subsystem 12. Also, it is clear from reading the Pecora et al. patent that the drive signal S_d is not a chaotic signal. There are no statements contained in the Pecora et al. patent that the drive signal S_d is not a chaotic signal. For example, it is stated at column 10, lines 55-60 that "An example of the system shown in FIG. 8 is shown in FIG. 5, in which at least one drive signal S_d and the information carrying chaotic carrier signal are transmitted as part of a pure frequency carrier which is frequency modulated with at least one drive signal S_d and amplitude modulated with the chaotic carrier signal." This clearly indicates that the drive signal is not chaotic, nor is it generated using a private key parameter input to a key stream generator.

Therefore, for the reasons argued above, it is respectfully submitted that the Pecora et al. patent does not disclose or suggest "a key stream generator comprising a chaotic circuit that generates a key stream in response to a private key parameter", "a transmitting chaotic circuit that processes the analog information signal and the key stream to generate and transmit a cipherwave", "a receiver, for receiving ... a copy of the private key parameter" and a receiver that comprises "a key stream generator comprising a chaotic circuit that processes the copy of the private key parameter and the transmitted key synchronization parameter to generate a copy of the key stream" and "a receiving chaotic circuit that processes the copy of the key stream and the cipherwave to demodulate the cipherwave" as is recited in Claim 1.

The patentable aspects recited in Claim 6 are substantially that same as the patentable aspect recited in Claim 1, except that they are stated in terms of a method. In view of the above arguments, it is respectfully submitted that the Pecora et al. patent does not disclose or suggest the invention recited in Claim 6 for the same reasons argued with regard to Claim 1.

Therefore, it is respectfully submitted that the Pecora et al. patent does not disclose or suggest the inventions recited in Claims 1 and 6. Dependent Claims 7 and 8 are considered allowable over the Pecora et al. patent based upon their dependence from allowable Claim 6. Withdrawal of the Examiner's rejection and allowance of Claims 1 and 6-8 are respectfully requested.

Claims 2-5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 5,379,346 issued to Pecora et al. in view of US Patent No. 55,007,087 issued to Bernstein et al. It is respectfully submitted that the Pecora et al. and Bernstein et al. patents, taken singly or together, do not disclose or suggest the invention recited in Claim 1. Therefore, it is respectfully submitted that the Pecora et al. and Bernstein et al. patents, taken singly or together, do not disclose or suggest the inventions recited in dependent Claims 2-5.

Claims 2-5 are considered allowable over the Pecora et al. and Bernstein et al. patents, taken singly or together, based upon their dependence from allowable Claim 1. Withdrawal of the Examiner's rejection and allowance of Claims 2-5 are respectfully requested.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure to the extent indicated by the Examiner.

In view of the above, it is respectfully submitted that the present application is in condition for allowance. Reconsideration and allowance thereof are earnestly solicited.

Respectfully submitted,



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AMENDMENT

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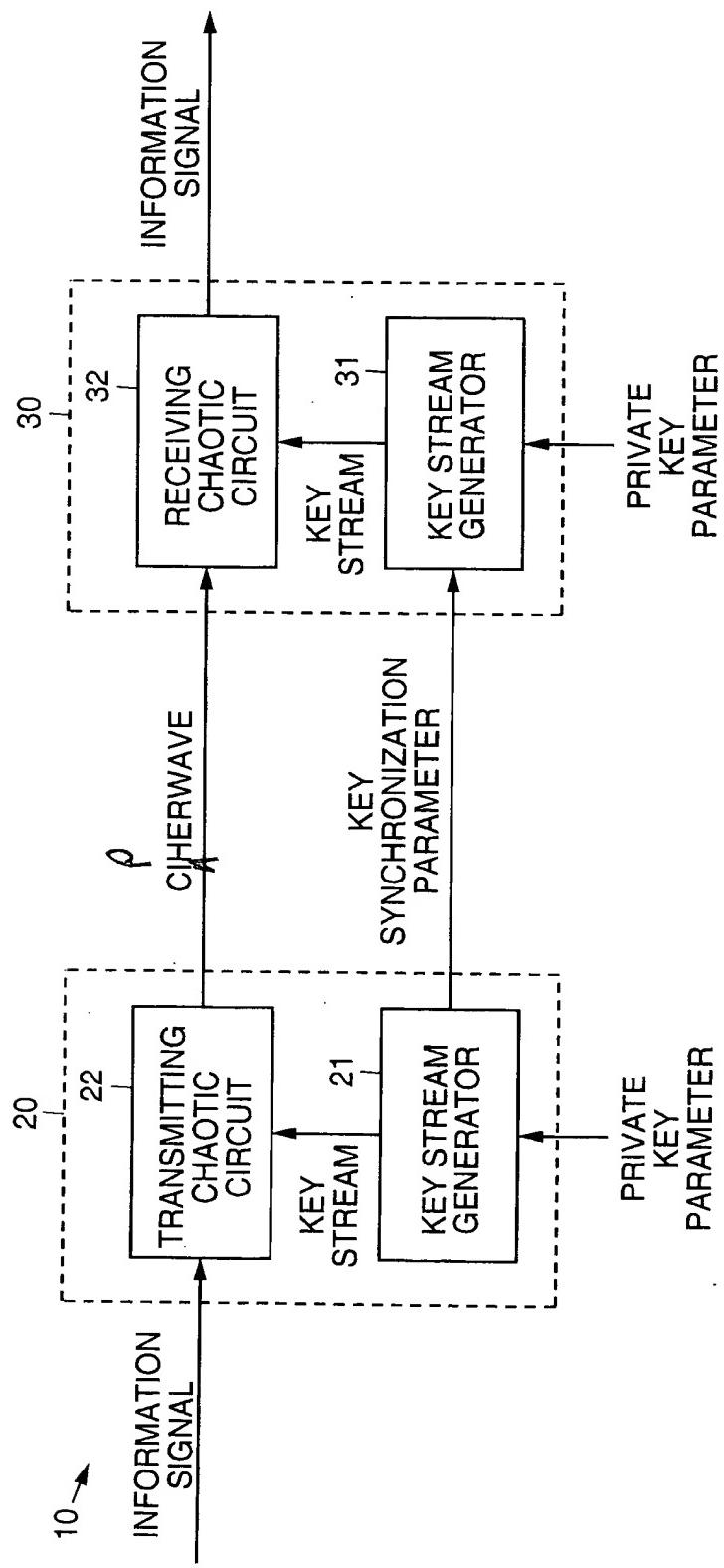


Fig. 1